

# KBPC1000GS – KBPC1010GS

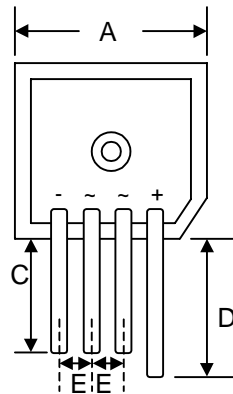
## 10A GLASS PASSIVATED IN-LINE BRIDGE RECTIFIER

### Features

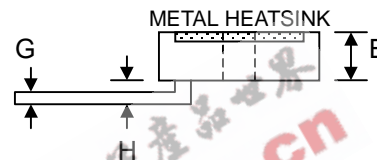
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space

### Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 30 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



KBPC-S		
Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
C	13.90	—
D	19.10	—
E	5.10	—
G	1.20 Ø Typical	
H	3.05	3.60
All Dimensions in mm		



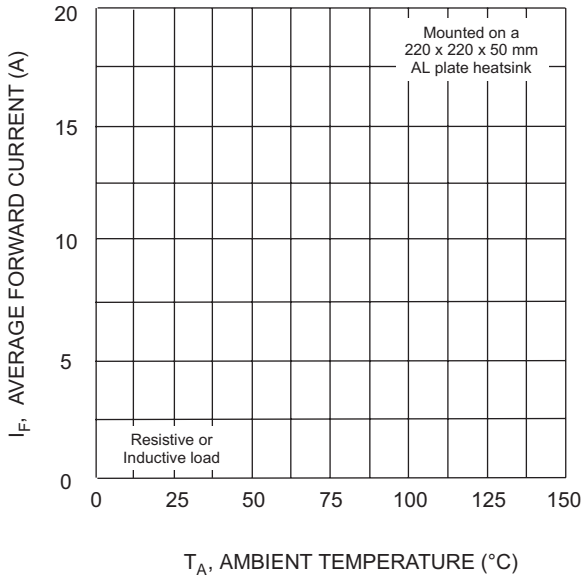
### Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

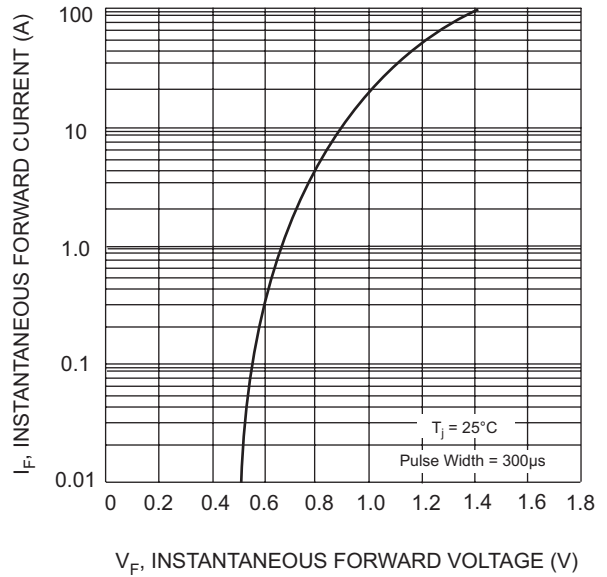
Characteristic	Symbol	KBPC 1000GS	KBPC 1001GS	KBPC 1002GS	KBPC 1004GS	KBPC 1006GS	KBPC 1008GS	KBPC 1010GS	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 50^{\circ}\text{C}$	$I_o$	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A
Forward Voltage (per element) @ $I_F = 5.0\text{A}$	$V_{FM}$	1.1							V
Peak Reverse Current @ $T_C = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^{\circ}\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 1)	$I^2t$	374							$\text{A}^2\text{s}$
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.0							K/W
RMS Isolation Voltage from Case to Lead	$V_{ISO}$	2500							V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^{\circ}\text{C}$

Note: 1. Non-repetitive for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .

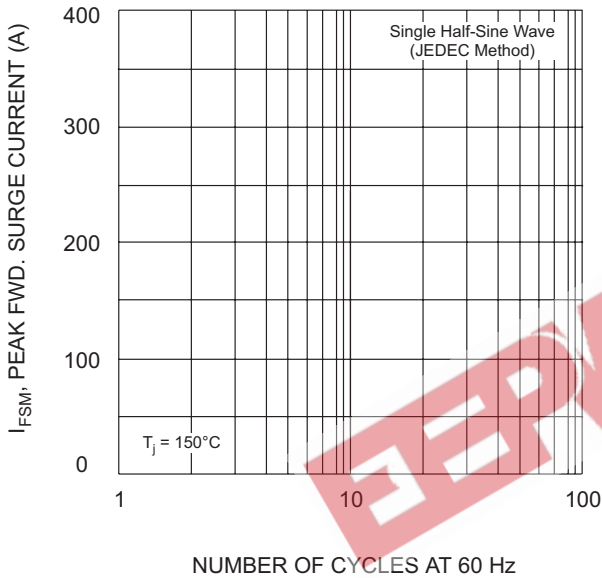
2. Thermal resistance junction to case per element mounted on 220 x 220 x 50mm thick AL plate.



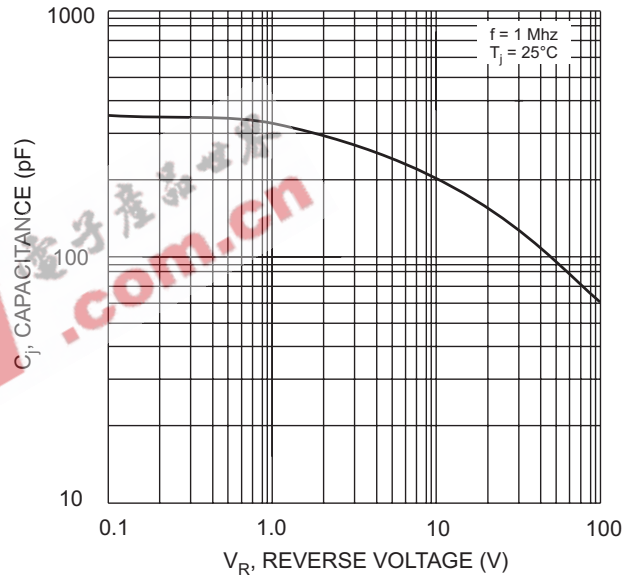
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



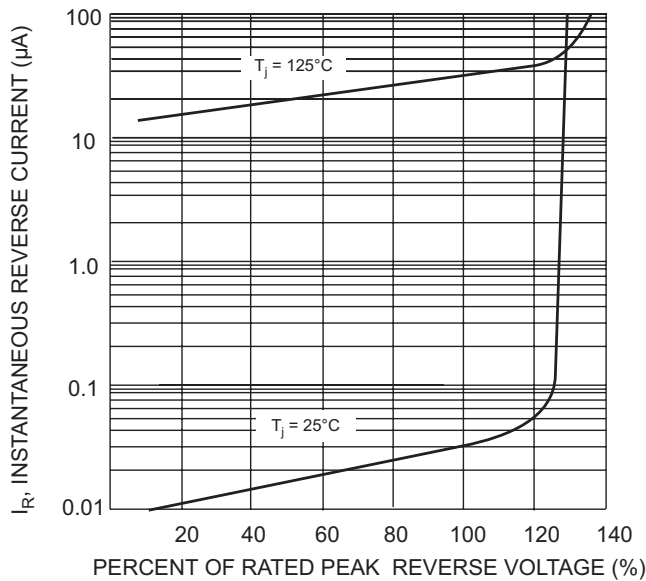
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Max Non-Repetitive Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 5 Typical Reverse Characteristics (per element)

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC1000GS	SIL Bridge	72 Units/Box
KBPC1001GS	SIL Bridge	72 Units/Box
KBPC1002GS	SIL Bridge	72 Units/Box
KBPC1004GS	SIL Bridge	72 Units/Box
KBPC1006GS	SIL Bridge	72 Units/Box
KBPC1008GS	SIL Bridge	72 Units/Box
KBPC1010GS	SIL Bridge	72 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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